# Preface

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Version 2.0

## Disclaimer

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## Trademark Recognition

Windows® 7/8 are registered trademarks of Microsoft Corp.

Other product names used in this manual are the properties of their respective owners and are acknowledged.

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

## Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation

## CE

This product has been tested and found to comply with the limits of the European Council Directive on the approximation of the laws of the member states relating to electromagnetic compatibility according to 2004/108/EC.

## Canadian Department of Communications

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Réglement sur le matériel brouilieur du Canada.

## Safety Instructions

Your system is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

## Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water or a heated source such as a radiator.
- Set up the system on a stable surface.
- Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- Use this product in environments with ambient temperatures between 0°C and 40°C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

## Attention during use

- Do not step on the power cord or let anything rest on top of it.
- Do not spill water or any other liquid on your system.
- When the system is turned OFF, a small amount of electrical currentstill flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
    - The power cord or plug is damaged.
    - Liquid has been spilled into the system.
    - The system does not function properly even if you follow the operating instructions.
    - The system was dropped or the cabinet is damaged.
    - The system performance changes

*The warranty does not apply to products that have been disassembled by users.*

# Safety cautions and warnings

## *Optical Drive Safety Information*

Optical drive sold with this system contains a CLASS 1 LASER PRODUCT.

*CAUTION:*

*Invisible laser radiation when open. Do not stare into beam or view directly with optical instructions.*

*WARNING:*

*Makeing adjustments or performing procedures other than those specified in the user's manual may result in hazardous laser exposuer. Do not attempt to disassemble the optical drive. For your safety, have the optical drive serviced only by an authorized service provider.*

## *Product disposal notice*

*INPORTANT:*

*This symbol if the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.*

## *Nordic Lithium Cautions (for lithium-ion batteries)*

*CAUTION:*

*Danger of explosoin if battery is incorrectly replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.*

## *Product disposal notice*

*1. Do not place this product underneath heavy loads or in an unstable position.*

*2. Do not use or expose this product around magnetic fields as magnetic interference may affect the performance of the product.*

*3. Do not expose this product to high levels of direct sunlight, high-humidity or wet conditions.*

*4. Do not block the air vents to this product or impede the airflow in any way.*

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# Chapter 1
# *Introducing the PC*

## Introduction

Thank you for choosing V20 which has great performance with stylish and power saving design, which will surely give you an exciting PC experience.

### 1.1 Specifications

| | | |
|---|---|---|
| Display Panel | • | 19.5” LED backlight LCD 16:9, 1600 x 900,<br>• Option: Capacitive 10-finger multi-touch |
| Platform | • | Intel Bay Trail-D platform |
| Memory | • | Support 1 x DDR3L 1333 SO-DIMM, up to 8GB |
| Storage | • | Support 1 x 2.5’’ SATA II HDD<br>• Support 1 x mSATA |
| Wireless | • | Support IEEE 802.11b/g/n. and Bluetooth 4.0 (Optional) |
| Camera | • | 1.0M pixel with two of digital mic |
| Speaker | • | 2 x 2W |
| Power Supply | • | Adapter 19v, 65W |
| VESA | • | 75mm x 75mm |
| I/O (Side) | • | 4 x USB 3.0 ports (Side x 2 x USB 3.0 ports + Rear x 2 x USB 3.0 ports)<br>• 1 x Giga LAN<br>• 1 x Mic-in<br>• 1 x Headphone<br>• 1 x DC-IN port<br>• 1 x 3-in-1 Card Reader (SD/MMC/MS) |
| Dimension | • | 484(W) x 335(H) x 38(D) mm |

## 1.2 Front view

*Note:*

*ID design may vary.*

### Webcam/Webcam LED Light

The built-in webcam with the microphone can be used for picture taking, video recording, online conference and any other interactive applications. Webcam LED light is on when webcam is activated.

### Built-in Microphone

The built-in microphone can be used for online video chatting.

### LCD/LED Display

The 19.5-inch TFT LCD/LED display is with an optimal resolution of 1600X 900.

### Speakers

The built-in stereo speakers deliver high quality sound blaster with stereo system and Hi-Fi function supported.

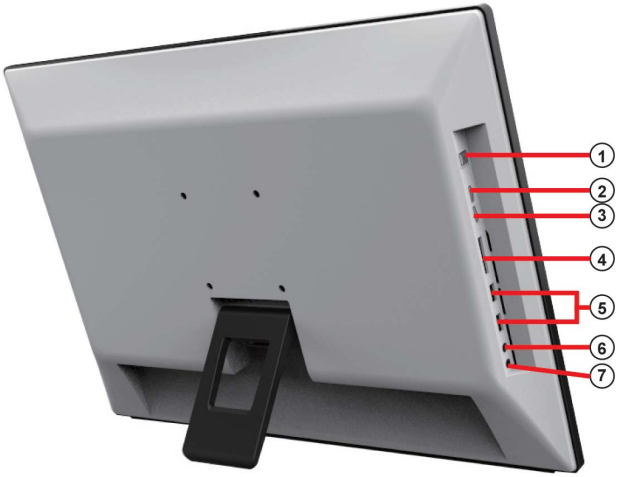
### Power LED Light

The Power LED light indicates the different stage of system mode. When booting the system, Power LED light is steady on, and it will always be on during user operating the system. And when system is in sleep mode (S3), Power LED light is blinking. And when system is in hibernating mode (S4) and power off mode, Power LED light is off.

*WARNING:*

*Do not thrust the speaker with your fingers or sharp-pointed things such as pens.*

## 1.3 Left view of the computer




1. Power Button
2. Brightness/Volume Up
3. Brightness/Volume Down
4. Multi Card Reader
5. USB 3.0 Ports
6. Headphone Jack
7. Microphone Jack

**1.Power Button**

Press the power button to turn the system on and off. The power LED is on when you turn on the system; the power LED is off when you turn off the system.

**2.Brightness/Volume Up***

Press this button to turn up the brightness of screen or turn up the volume.

**3.Brightness/Volume Down***

Press this button to turn down the brightness of screen or turn down the volume.

*Note:*

**1.If you press the Brightness/Volume Up/Down button for less than 3s, the volume will be up/down for a step; and if you press the Brightness/Volume Up/Down button for more than 3s, the screen brightness will be up/down for a step.*

*2.If you press the Brightness/Volume Up/Down button for more than 3s, it switches into brightness adjustment mode which will last for nearly 25s, and if you press it for less than 3s, the mode will not be switched. After more than 25s idle, if you press it for less than 3s, it switches back to volume adjustment mode.*

**4.Multi Card Reader**

The build-in card reader may support various types of memory card, such as SD (Secure Digital), MS (Memory Stick) or MMC (Multi-Media Card) cards that usually used in devices like digital cameras, MP3 players, mobile phones and PDAs. Contact the local dealer for further information and please be noted that the supported memory cards may vary without notice.

**5.USB 3.0 Ports**

The USB (Universal Serial Bus) 3.0 ports are provided for attaching USB 3.0 devices such as mouse, keyboard, printer, scanner, camera, PDA or other USB 3.0 compatible devices.

**6.Headphone Jack (Green)**

This is a jack for headphone.

**7.Microphone Jack (Pink)**

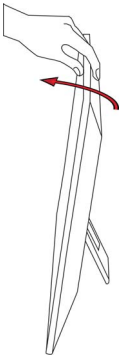
This is a jack for microphone.

## 1.4 Back view

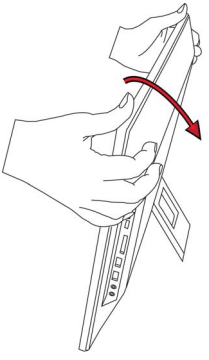
### Computer stand

Use the stand to position the display to your preference. The tilt down degree of monitor can be adjusted from 12° to 30° to meet all kinds of working environments. You can slightly push the computer backwards to increase the tilt down degree, otherwise, you can slightly pull the computer to decrease the tilt down degree. Please refer to the following pictures. The stand provides stability to the computer, please remain installed all the time to ensure maximum system stability.

**12° min.**



**30° max.**

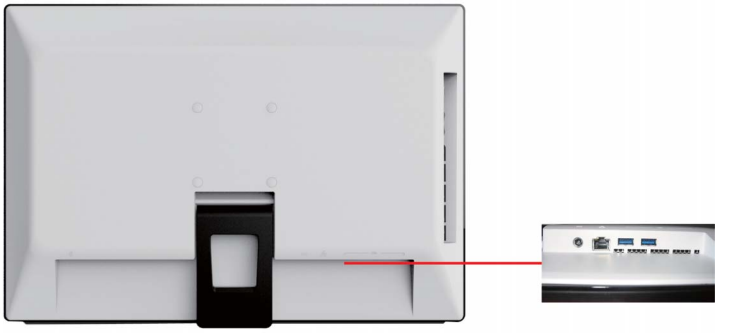


If you want to make it touch easily or share conveniently, you can place the computer flatly.

**0° Flat Position**

## Rear I/O

There are many ports below of the main chassis, such as USB ports, DC-in jack and LAN connector. Please refer to the specification in motherboard manual. You will find the I/O position as below.



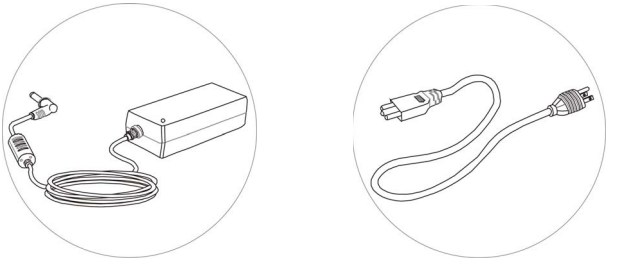
*Note:*
*The descriptions in this part might vary from your computer, depending on motherboard model and configurations.*

## 1.5 Connecting your computer

Use the following information to connect your computer:
Look for the small connector icons on the back of your computer. Match the connectors to the icons.

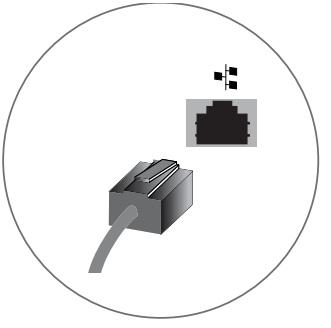
*Note:*
*Your computer might not have all of the connectors that are described in this section. It mainly depend the motherboard you choose.*

1. Check the voltage rating before you connect the equipment to an electrical outlet to ensure that the required voltage and frequency match the available power source.



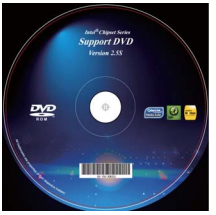
*Note:*
*After you connect the AC/DC Adapter and the AC Power Core, please connect the AC/DC Adapter to the DC-IN power connector in the Inside I/O port of the computer first, then connect the AC Power Cord to the power.*

2. Connect the R45J LAN cable to the LAN port.

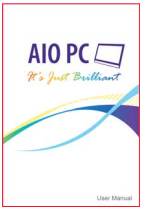


3. Your computer is equipped with a Memory Card Reader Connector, it is able to read/write data from: SD/MMC/MS.

## Packing Contents




Driver DVD




Manual

Adapter

Power Cable

*NOTE:*

*Please contact us immediately if any of the items is damaged or missing.*

# Chapter 2
# *Installing the System*

## 2.1 Safety Precautions

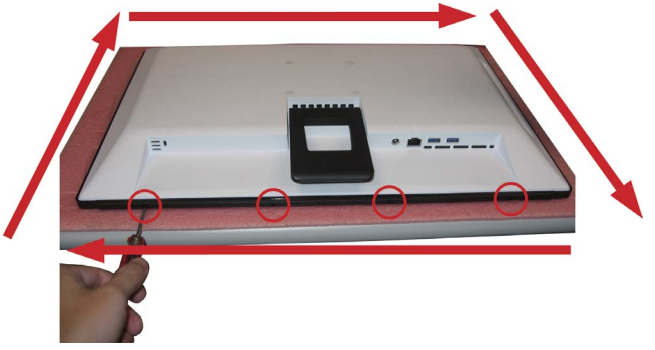
Follow these safety precautions when installing the system:

- Wear a grounding strap attached to a grounded device to avoid damage from static electricity.
- Discharge static electricity by touching the metal case of a safely grounded object before working on the motherboard.
- Leave components in the static-proof bags.
- Always remove the AC power by unplugging the power cord from the power outlet before installing.

## 2.2 Open the Chassis

Please refer to the following pictures to open the chassis.

Step 1. Loosen the four screws of the pedestal, then unlock the hooks along the frame in anti-clockwise direction.

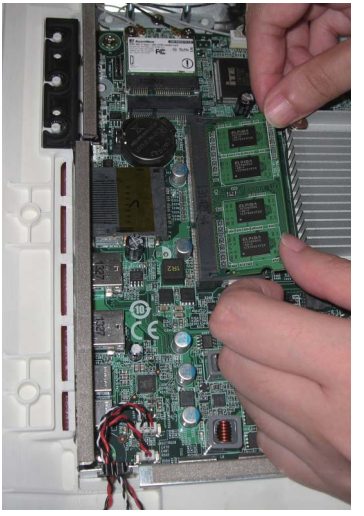


Step 2. Lift the screen to open the chassis.

## 2.3 Install the Key Components

### 2.3.1. Installing Memory Modules

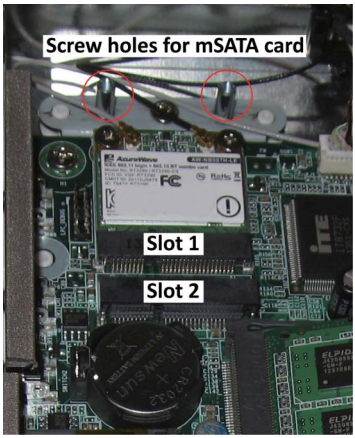
- Do not remove any memory module from its antistatic packaging until you are ready to install it on the motherboard. Handle the modules only by their edges. Do not touch the components or metal parts. Always wear a grounding strap when you handle the modules.
- You must install one module in the slot. Total memory capacity is 8 GB.
- Refer to the following to install the memory modules.
- Install the memory module into the slot and press it firmly down until it fits in place. Check that the cutouts on the memory module edge connector match the notches in the memory slot.



### 2.3.2. Installing Add-on Cards

The slots on this motherboard, which support wifi card and mSATA card, are designed to enhancing the system's features and capabilities. With these efficient facilities, you can experience a convenient wireless environment and a high operation speed increase the capabilities by adding hardware that performs tasks that are not part of the basic system.

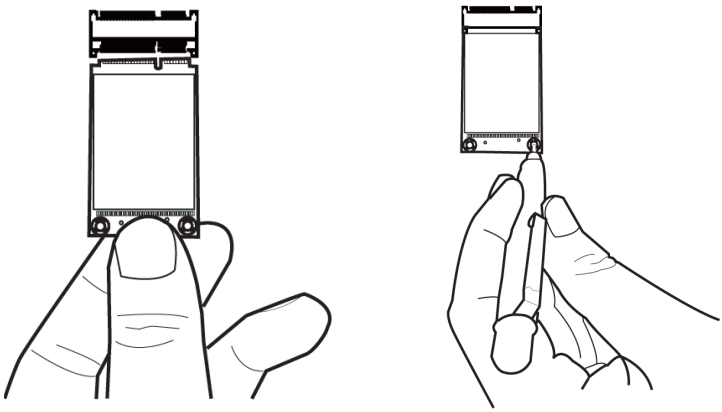
The slot 1 (half card size) goes with PCIe and USB signal is reserved for wifi card. The slot 2 (full card size) goes with SATA signal is reserved for mSATA SSD card.




Follow these instructions to install a wifi card and mSATA card:

1. Insert a wifi card or mSATA card into the slot.

2. Lower the handle and tighten the screws.

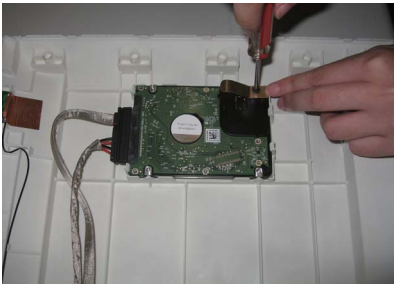


### 2.3.3. Installing a Hard Disk Drive

This AIO PC features one SATA connectors supporting a one 2.5'' hard disk drive.

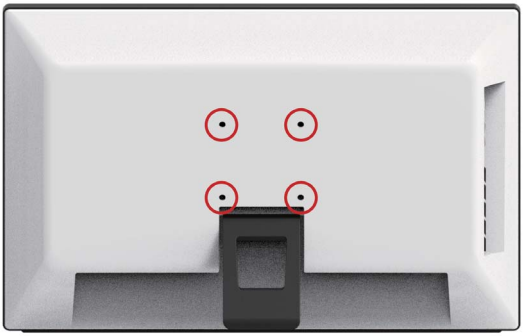
- Attache the single SATA cable to the hard disk drive and firmly fix it to the chassis by hooks.

- Screws the EMC shield onto the hard disk for better EMC protection.



## 2.4 Install the VESA Mount

This AIO PC supports standard 75 x 75mm VESA mount, and just need to remove the four rubbers of the back cover.



## 2.5 Motherboard Components

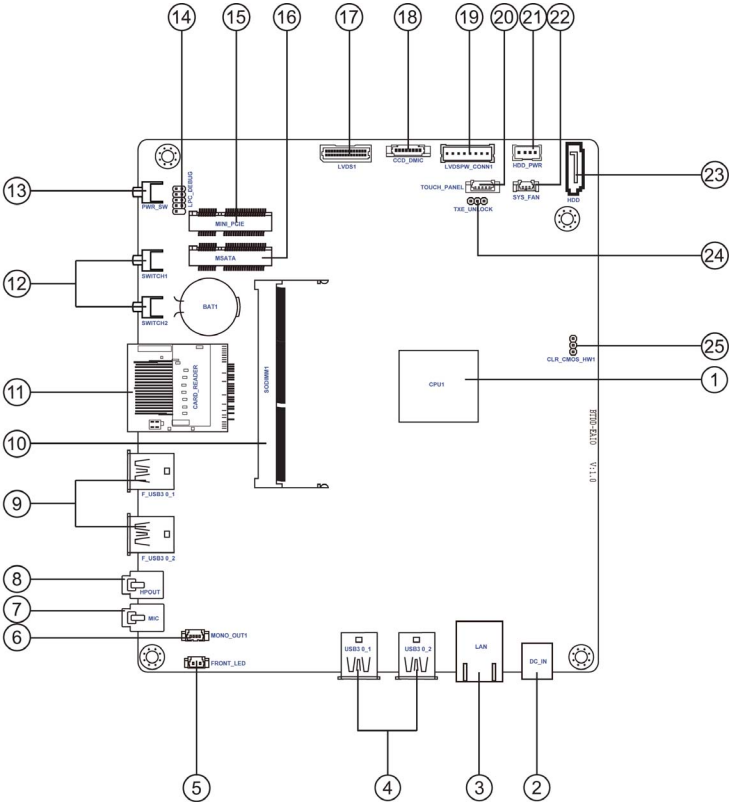


*Table of Motherboard Components*

| LABEL | COMPONENTS |
|---|---|
| 1. CPU Socket | Intel® Bay Trail-D platform |
| 2. DC_IN connector | DC in connector |
| 3. LAN | LAN connector |
| 4. USB3 0_1~2 | USB 3.0 connectors |
| 5. FRONT_LED | Power LED header |
| 6. MONO_OUT1 | Internal Speakers Header |
| 7. MIC | Microphone connector |
| 8. HPOUT | Headphone out connector |
| 9. F_USB3 0_1~2 | Front panel USB 3.0 ports |
| 10. SODIMM1 | 204-pin DDR3 SDRAM slot |
| 11. CARD_READER | Card reader slot |
| 12. SWITCH1~2 | Brightness/Volume Up/Down buttons |
| 13. PWR_SW | Power on/off button |
| 14. LPC_DEBUG | LPC Debug header |
| 15. MINI_PCIE | Mini card slot |
| 16. MSATA | Mini card slot |
| 17. LVDS1 | LVDS connector |
| 18. CCD_DMIC | Webcam header |
| 19. LVDSPW_CONN1 | LVDS power header |
| 20. TOUCH_PANEL | Touch panel connector |
| 21. HDD_PWR | HDD power connector |
| 22. SYS_FAN | System cooling fan connector |
| 23. HDD | SATA II connector |
| 24. TXE_UNLOCK | TXE Unlock header with jumper |
| 25. CLR_CMOS_HW1 | Clear CMOS header with jumper |

## 2.6 Checking Jumper Settings

This section explains how to set jumpers for correct configuration of the motherboard.

### *Setting Jumpers*

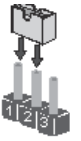
Use the motherboard jumpers to set system configuration options. Jumpers with more than one pin are numbered. When setting the jumpers, ensure that the jumper caps are placed on the correct pins.

The illustrations show a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is SHORT. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is OPEN.

SHORT

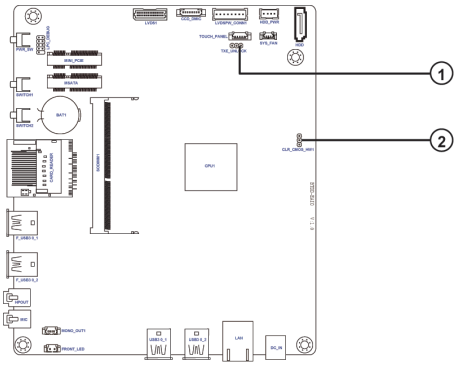
OPEN

This illustration shows a 3-pin jumper. Pins 1 and 2 are SHORT.



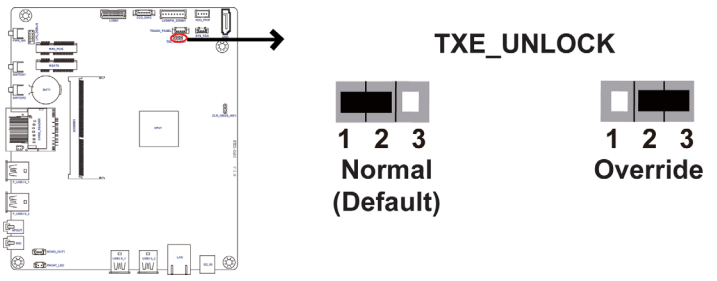
### *Checking Jumper Settings*

The following illustration shows the location of the motherboard jumpers. Pin 1 is labeled.



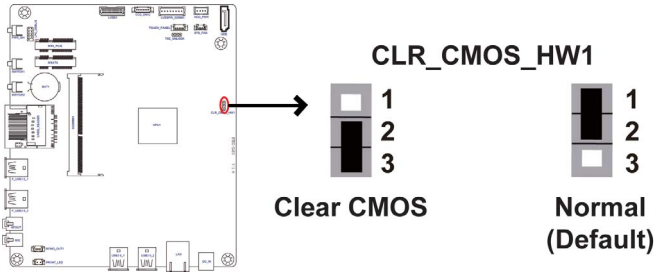

| No. | Components |
|---|---|
| 1 | TXE_UNLOCK |
| 2 | CLR_CMOS_HW1 |

### 1. TXE_UNLOCK: TXE Unlock header with jumper



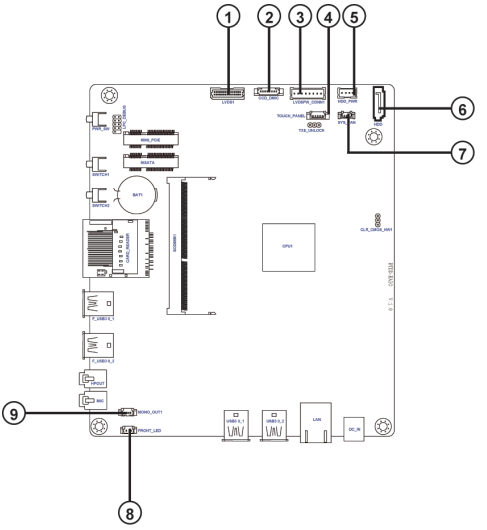
### 2. CLR_CMOS_HW1: Clear CMOS header with jumper

The following illustration shows the location of the motherboard jumpers. Pin 1 is labeled.



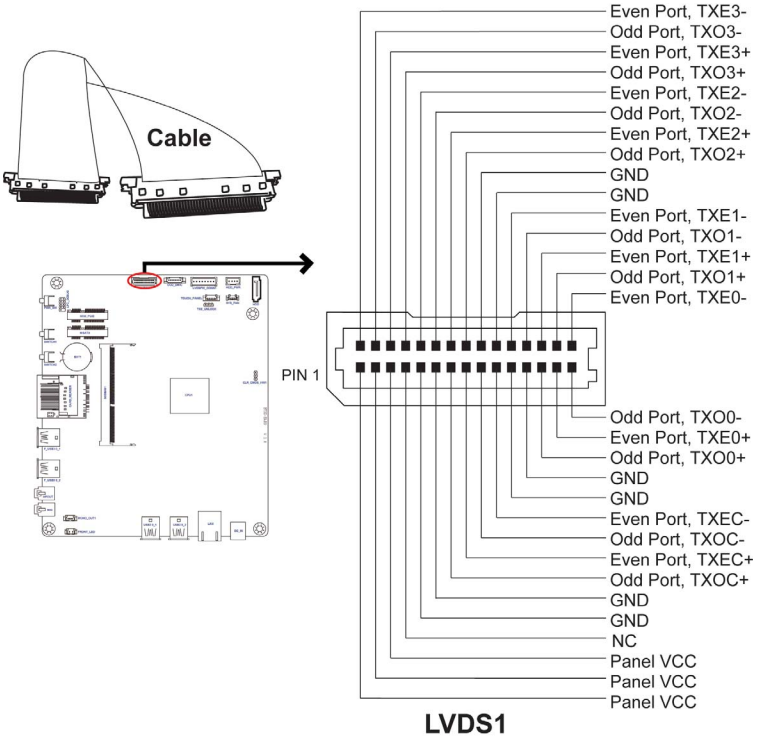

*To avoid the system unstability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Default Settings" and then "Save and Exit Setup".*

## 2.7 Connecting Devices




| No. | Components | No. | Components |
|---|---|---|---|
| 1 | LVDS1 | 6 | HDD |
| 2 | CCD_DMIC | 7 | SYS_FAN |
| 3 | LVDSPW_CONN1 | 8 | FRONT_LED |
| 4 | TOUCH_PANEL | 9 | MONO_OUT1 |
| 5 | HDD_PWR | ~ | ~ |

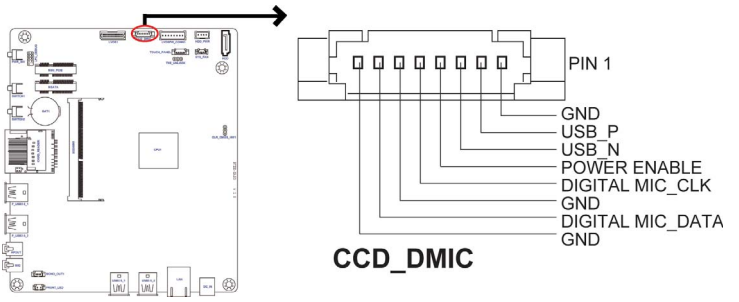
## 1. LVDS1: LVDS Connector



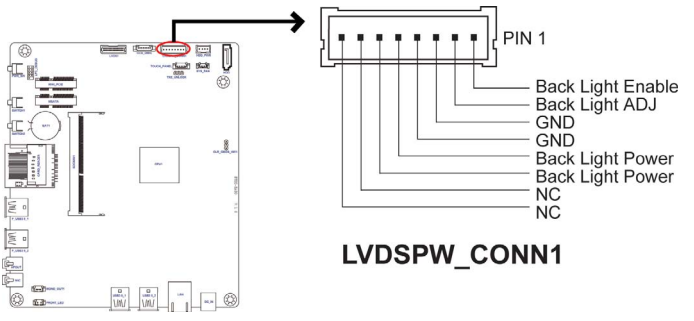

*1. You can connect the large end of the cable to the LED Panel, and connect the other small end to the slot on the motherboard.*

*2.Due to the chipset limitation, using dual displays LVDS(AIO) + VGA or LVDS(AIO) + HDMI will cause the problem that you may not enter BIOS setup or have the display problem.*

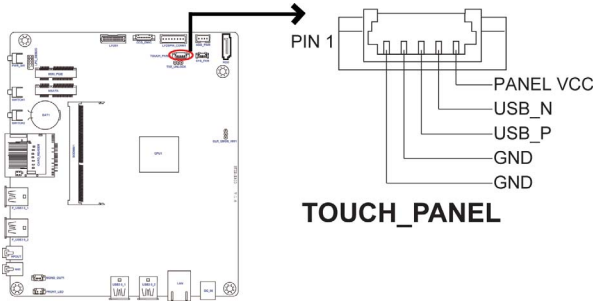
### 2. CCD_DMIC: Webcam header



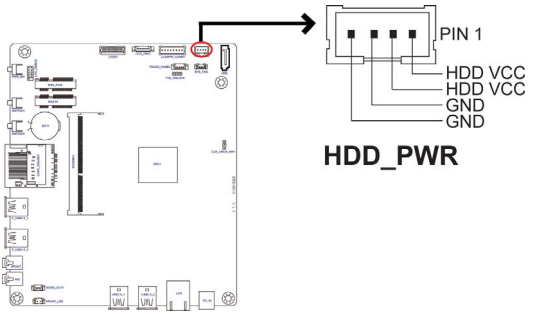

### 3. LVDSPW_CONN1: LVDS power header



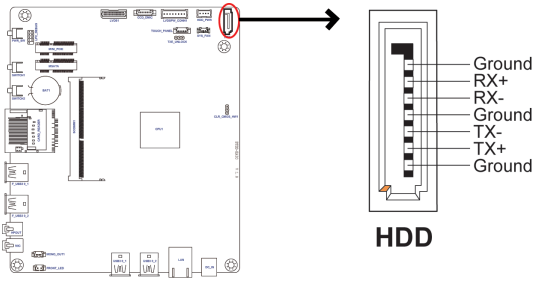
### 4. TOUCH_PANEL: Touch panel connector



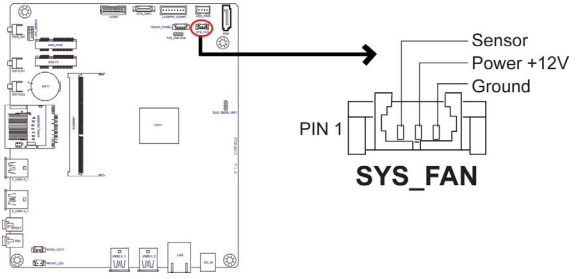

### 5. HDD_PWR: HDD power connector



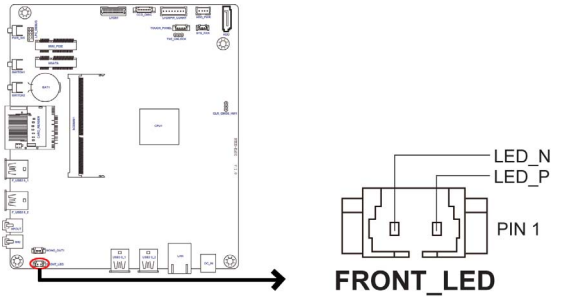
### 6. HDD: SATA II connector



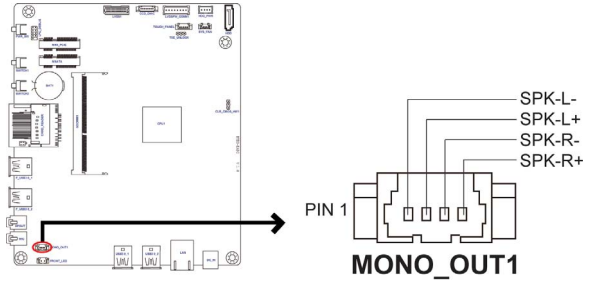

### 7. SYS_FAN: System cooling FAN connector



### 8. FRONT_LED: Power LED header




### 9. MONO_OUT1: Internal Speakers header



# Chapter 3
# *Using BIOS*

## About the Setup Utility

The computer uses the latest "American Megatrends Inc. " BIOS with support for Windows Plug and Play. The CMOS chip on the motherboard contains the ROM setup instructions for configuring the motherboard BIOS.

The BIOS (Basic Input and Output System) Setup Utility displays the system's configuration status and provides you with options to set system parameters. The parameters are stored in battery-backed-up CMOS RAM that saves this information when the power is turned off. When the system is turned back on, the system is configured with the values you stored in CMOS.

The BIOS Setup Utility enables you to configure:

- Hard drives, diskette drives and peripherals
- Video display type and display options
- Password protection from unauthorized use
- Power Management features

The settings made in the Setup Utility affect how the computer performs. Before using the Setup Utility, ensure that you understand the Setup Utility options.

This chapter provides explanations for Setup Utility options.

### *The Standard Configuration*

A standard configuration has already been set in the Setup Utility. However, we recommend that you read this chapter in case you need to make any changes in the future.

This Setup Utility should be used:

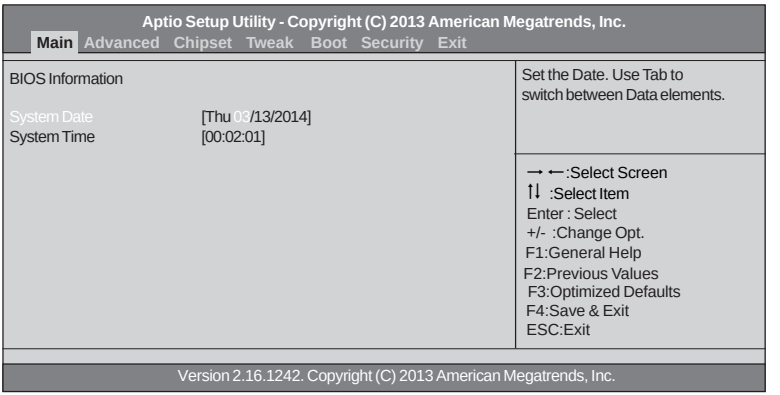
- when changing the system configuration
- when a configuration error is detected and you are prompted to make changes to the Setup Utility
- when trying to resolve IRQ conflicts
- when making changes to the Power Management configuration
- when changing the password or making other changes to the Security Setup

### *Entering the Setup Utility*

When you power on the system, BIOS enters the Power-On Self Test (POST) routines. POST is a series of built-in diagnostics performed by the BIOS. After the POST routines are completed, the following message appears:

***Press DEL to enter SETUP***

Press the delete key to access BIOS Setup Utility.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
BIOS Information
System Date [Thu 03/13/2014]
System Time [00:02:01]
Set the Date. Use Tab to switch between Data elements.
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- :Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

### *Resetting the Default CMOS Values*

When powering on for the first time, the POST screen may show a "CMOS Settings Wrong" message. This standard message will appear following a clear CMOS data at factory by the manufacturer. You simply need to Load Default Settings to reset the default CMOS values.

Note: Changes to system hardware such as different CPU, memories, etc. may also trigger this message.

American Megatrends
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.
BTDD-EAIO Release 10/16/2013
Press <F7> to enter BBS POPUP
Press <DEL> or <F2> to enter setup.
CMOS Settings Wrong

## Using BIOS

When you start the Setup Utility, the main menu appears. The main menu of the Setup Utility displays a list of the options that are available. A highlight indicates which option is currently selected. Use the cursor arrow keys to move the highlight to other options. When an option is highlighted, execute the option by pressing <Enter>.

Some options lead to pop-up dialog boxes that prompt you to verify that you wish to execute that option. Other options lead to dialog boxes that prompt you for information.

Some options (marked with a triangle ▶) lead to submenus that enable you to change the values for the option. Use the cursor arrow keys to scroll through the items in the submenu.

In this manual, default values are enclosed in parenthesis. Submenu items are denoted by a triangle ▶.

*The default BIOS setting for this motherboard apply for most conditions with optimum performance. We do not suggest users change the default values in the BIOS setup and take no responsibility to any damage caused by changing the BIOS settings.*

## *BIOS Navigation Keys*

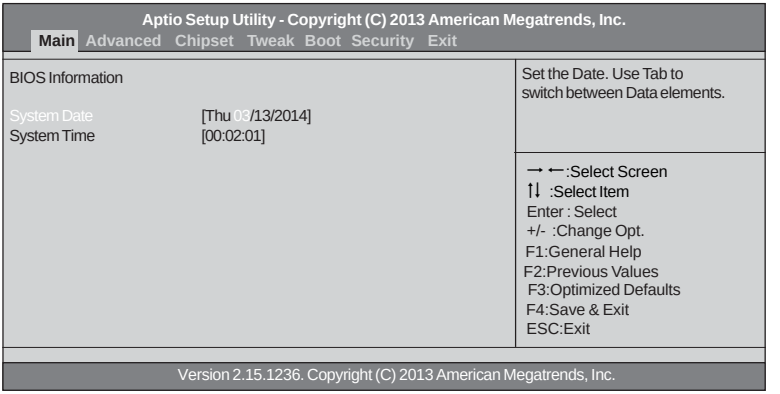
The BIOS navigation keys are listed below:

| KEY | FUNCTION |
|---|---|
| **ESC** | Exits the current menu |
| ↑↓→← | Scrolls through the items on a menu |
| **+/-** | Modifies the selected field's values |
| **Enter** | Select |
| **F1** | General Help |
| **F2** | Previous Values |
| **F3** | Optimized Defaults |
| **F4** | Save & Exit |

*For the purpose of better product maintenance, the manufacture reserves the right to change the BIOS items presented in this manual. The BIOS setup screens shown in this chapter are for reference only and may differ from the actual BIOS. Please visit the manufacture's website for updated manual.*

## *Main Menu*

When you enter the BIOS Setup program, the main menu appears, giving you an overview of the basic system information. Select an item and press <Enter> to display the submenu.

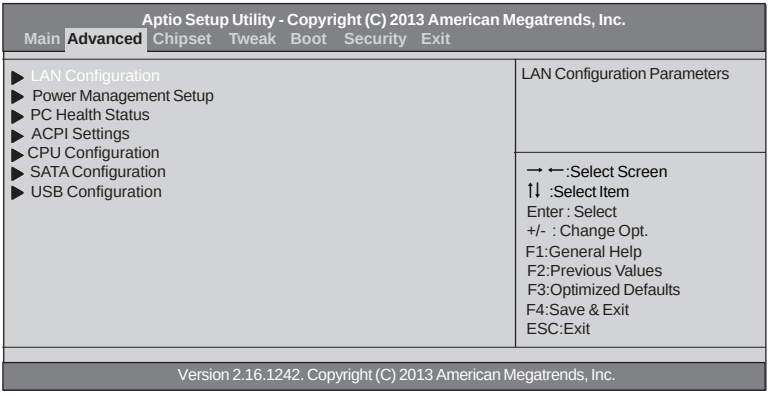

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
BIOS Information
System Date [Thu 03/13/2014]
System Time [00:02:01]
Set the Date. Use Tab to switch between Data elements.
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- :Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.15.1236. Copyright (C) 2013 American Megatrends, Inc.

### System Date & Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

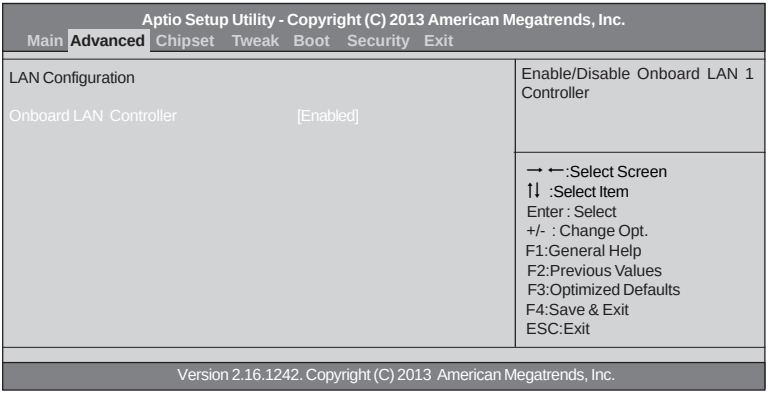
## *Advanced Menu*

The Advanced menu items allow you to change the settings for the CPU and other system.




### ▶LAN Configuration

The item in the menu shows the LAN-related information that the BIOS automatically detects.

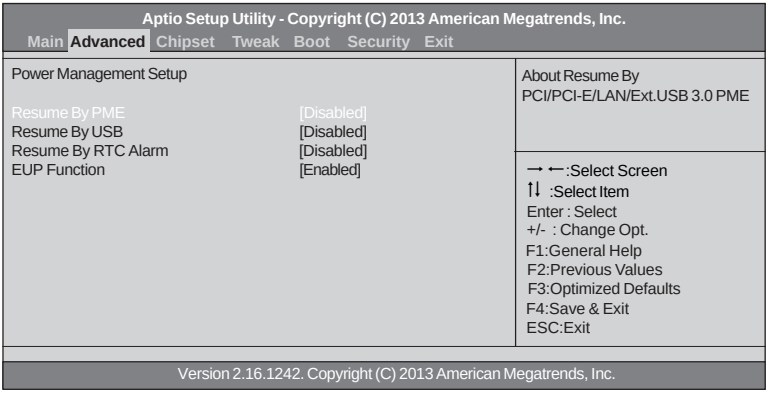



**Onboard LAN Controller (Enabled)**
Use this item to enable or disable the Onboard LAN.

Press <Esc> to return to the Advanced Menu page.

## ▶Power Management Setup

This page sets up some parameters for system power management operation.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
Power Management Setup
Resume By PME [Disabled]
Resume By USB [Disabled]
Resume By RTC Alarm [Disabled]
EUP Function [Enabled]
About Resume By PCI/PCI-E/LAN/Ext.USB 3.0 PME
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

**Resume By PME (Disabled)**

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the PCI/PCI-E Modem or PCI/PCI-E LAN card. You must use an ATX power supply in order to use this feature. Use this item to do wake-up action if inserting the PCI/PCI-E card.

**Resume By USB (Disabled)**

This item allows you to enable or disable the USB device wakeup function from S3 mode.

**Resume By RTC Alarm (Disabled)**

The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature.

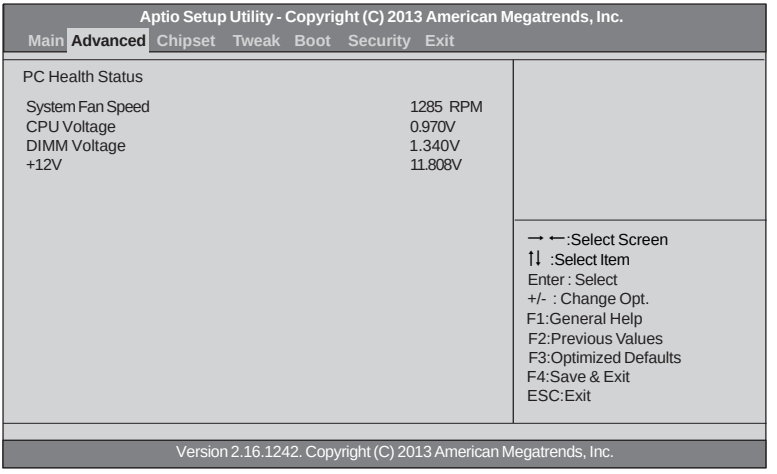
**EUP Function (Enabled)**

This item allows user to enable or disable EUP support.

Press <Esc> to return to the Advanced Menu page.

## ▶PC Health Status

On motherboards support hardware monitoring, this item lets you monitor the paremeters for critical voltages, temperatures and fan speeds.




**System Component Characteristics**

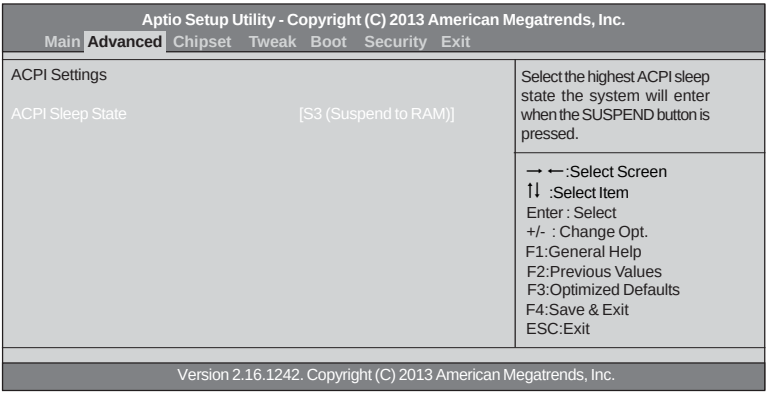
These items display the monitoring of the overall inboard hardware health events, such as System & CPU temperature, CPU & DIMM voltage, CPU & system fan speed,... etc.

- System Fan Speed
- CPU Voltage
- DIMM Voltage
- +12V

Press <Esc> to return to the Advanced Menu page.

## ▶ACPI Settings

The item in the menu shows the highest ACPI sleep state when the system enters suspend.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
ACPI Settings
ACPI Sleep State
[S3 (Suspend to RAM)]
Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
→ ←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

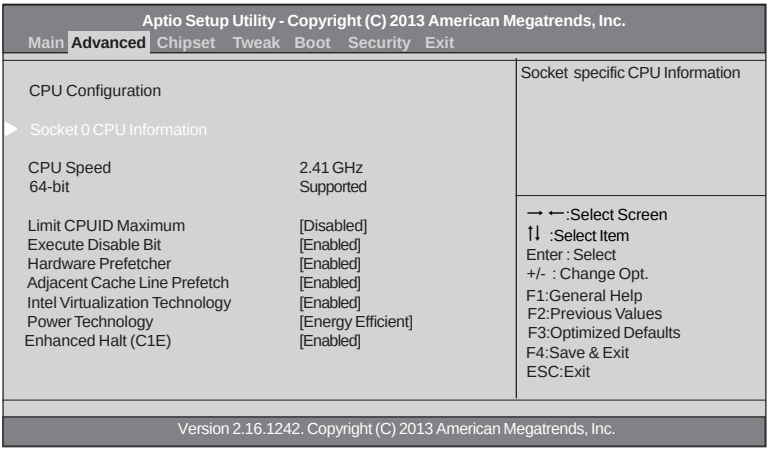
**ACPI Sleep State (S3(Suspend to RAM))**

This item allows user to enter the ACPI S3 (Suspend toRAM) Sleep State(default).

Press <Esc> to return to the Advanced Menu page.

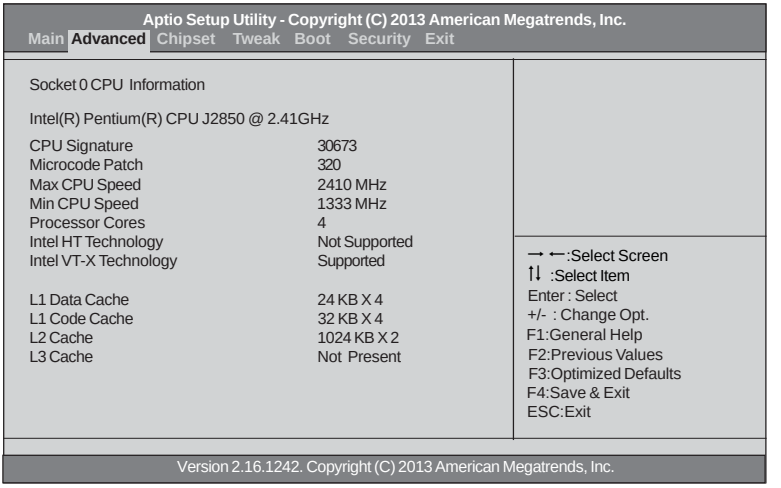
## ▶CPU Configuration

The item in the menu shows the CPU information.




### ▶ Socket 0 CPU Information

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
Socket 0 CPU Information
Intel(R) Pentium(R) CPU J2850 @ 2.41GHz
CPU Signature 30673
Microcode Patch 320
Max CPU Speed 2410 MHz
Min CPU Speed 1333 MHz
Processor Cores 4
Intel HT Technology Not Supported
Intel VT-X Technology Supported
L1 Data Cache 24 KB X 4
L1 Code Cache 32 KB X 4
L2 Cache 1024 KB X 2
L3 Cache Not Present
→ ←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

***Intel(R) Pentium(R) CPU J2850 @ 2.41GHz***

This is display-only field and displays the information of the CPU installed in your computer.

***CPU Signature (30673)***

This item shows the information of the CPU signature.

***Microcode Patch (320)***

This item shows the version of Microcode patch.

***Max CPU Speed (2410 MHz)***

This item shows the max speed of the CPU.

***Min CPU Speed (1333 MHz)***

This item shows the min speed of the CPU.

***Processor Cores (4)***

This item shows the number of cores of the processor.

***Intel HT Technology (Not Supported)***

This item shows the computer supports Intel HT technology or not.

***Intel VT-X Technology (Supported)***

This item shows the computer supports Intel VT-X technology or not.

***L1 Data Cache (24 KB X 4)***

This item shows the size of CPU L1 Data Cache memory.

***L1 Code Cache (32 KB X 4)***

This item shows the size of CPU L1 Code Cache memory.

***L2/L3Cache (1024 KB X 2/Not present)***

These items show the size of CPU L2/L3 Cache memory.

Press <Esc> to return to the CPU Configuration page.

**CPU Speed (2.41 GHz)**

This item shows the processor speed.

**64-bit (Supported)**

This item shows the CPU installed in your computer support 64-bit or not.

**Limit CPUID Maximum (Disabled)**

Use this item to enable or disable the maximum CPUID value limit, you can enable this to prevent the system from “rebooting” when trying to install Windows NT 4.0.

**Excute Disable Bit (Enabled)**

This item allows the processor to classify areas in memory by where application code can execute and where it cannot. When a malicious worm attempts to insert code in the buffer, the processor disables code execution, preventing damage or worm propagation. Replacing older computers with Execute Disable Bit enabled systems can halt worm attacks, reducing the need for virus related repair.

**Hardware Prefetcher (Enabled)**

If you enable this item, the processor fetches data and instructions from the memory into the cache that are likely to be required in the near future. This reduces the latency associated with memory reads.

**Adjacent Cache Line Prefetch (Enabled)**

If you enable this item, the processor fetches the currently requested cache line, as well as the subsequent cache line. This reduces the cache latency by making the next cache line immediately avaiable if the processor requires it as well.

**Intel Virtualization Technology (Enabled)**

When enabled, a VMM can utilize the additional hardware capabilities provided by Vandor Pool Technology.

**Power Technology (Energy Efficient)**

This item enables or disables the power management features.

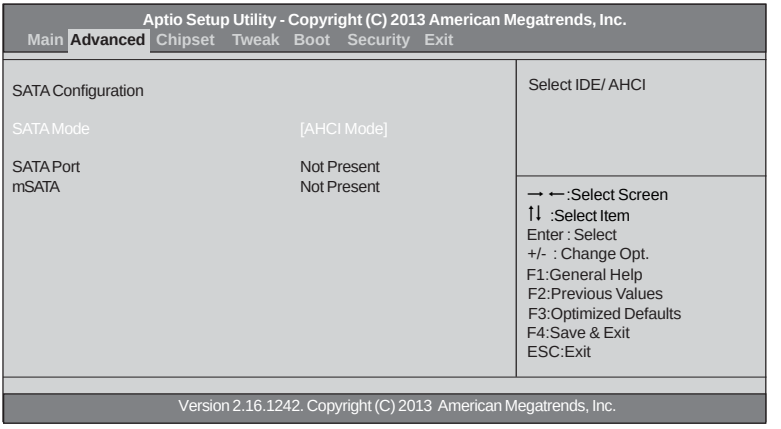
**Enhanced Halt (C1E) (Enabled)**

Use this item to enable the CPU energy-saving function when the system is not running.

Press <Esc> to return to the Advanced Menu page.

## ▶SATA Configuration

Use this item to show the mode of serial SATA configuration options.




**SATA Mode (AHCI Mode)**

Use this item to select SATA mode.

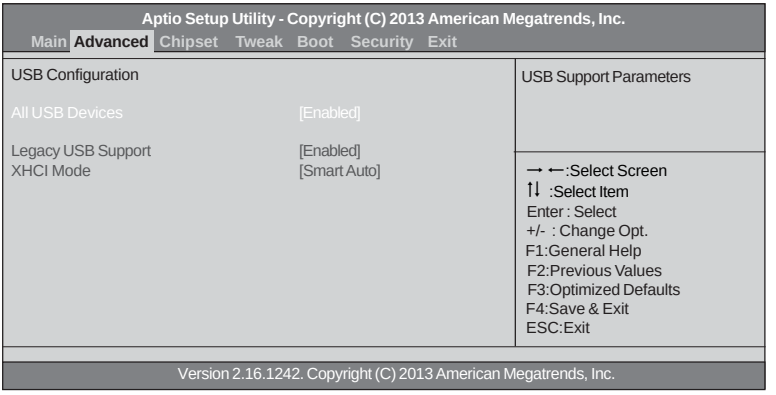
**SATA Port/mSATA (Not Present)**

This motherboard supports one SATA and one mSATA channel, and each channel allows one SATA/mSATA device to be installed. These items will display the information of devices installed.

Press <Esc> to return to the Advanced Menu page.

## ▶USB Configuration

Use this item to show the information of USB configuration.




**All USB Devices (Enabled)**

Use this item to enable or disable all USB devices.

**Legacy USB Support (Enabled)**

Use this item to enable or disable support for legacy USB devices.

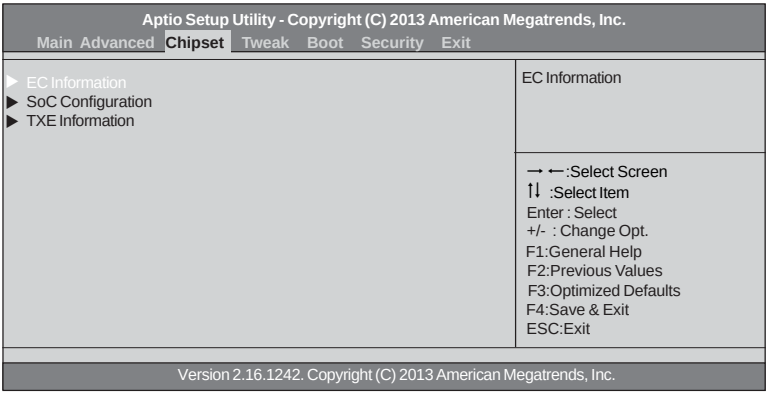
**XHCI Mode (Smart Auto)**

Use this item to enable or disable USB XHCI mode.

Press <Esc> to return to the Advanced Menu page.

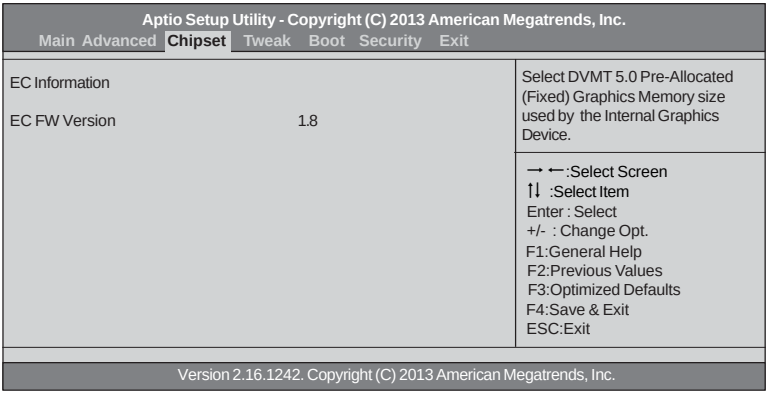
## *Chipset Menu*

The chipset menu items allow you to change the settings for the SoC chip and other system.




**▶EC Information**

Scroll to this item and press <Enter> and view the following screen.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
EC Information
EC FW Version 1.8
Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

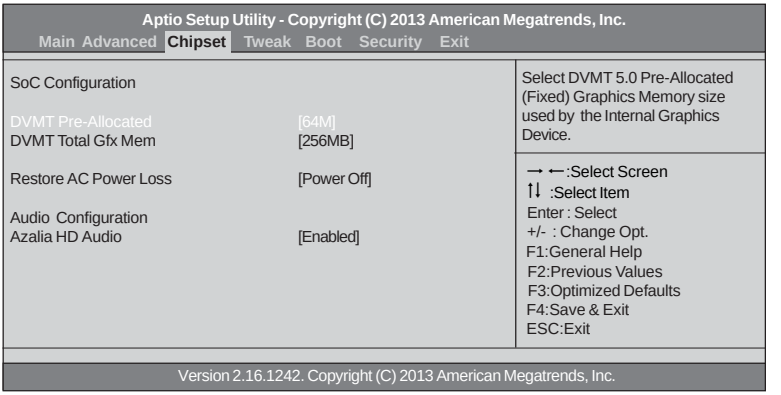
**EC FW Version (1.8)**

This item shows the information of the EC FW version.

Press <Esc> to return to the Chipset Menu page.

### ▶ SoC Configuration

Scroll to this item and press <Enter> and view the following screen.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
SoC Configuration
DVMT Pre-Allocated [64M]
DVMT Total Gfx Mem [256MB]
Restore AC Power Loss [Power Off]
Audio Configuration
Azalia HD Audio [Enabled]
Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

**DVMT Pre-Allocated (64M)**

This item is used to select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

**DVMT Total Gfx Mem (256MB)**

This item shows the information of DVMT 5.0 total graphic memory size used by Internal Graphics Device.

**Restore AC Power Loss (Power Off)**

This item enables your computer to automatically restart or return to its operating status.

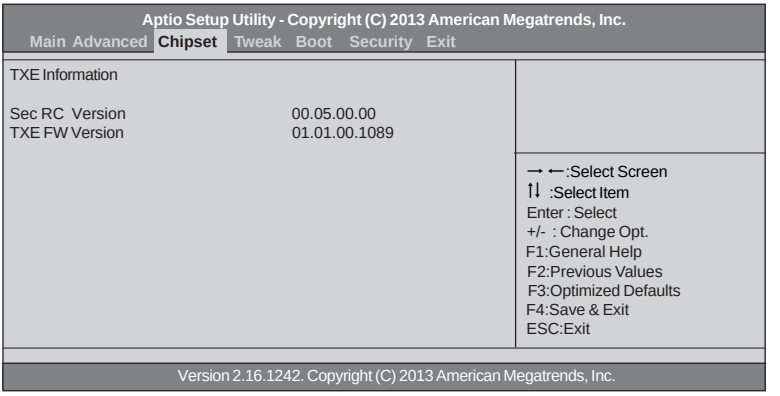
**Azalia HD Audio (Enabled)**

This item enables or disables Azalia HD audio.

Press <Esc> to return to the Chipset Menu page.

**▶TXE Information**

Scroll to this item and press <Enter> to view the following screen.




**Sec RC Version (00.05.00.00)**

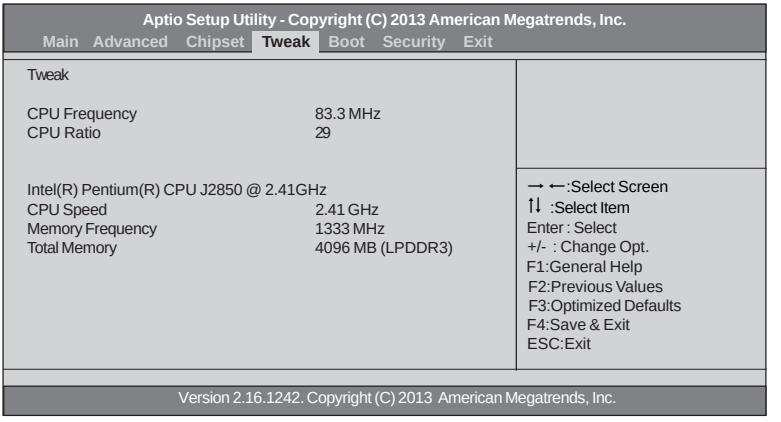
This item shows the Sec Reference Code Version.

**TXE FW Version (01.01.00.1089)**

This item shows the TXE Firmware Version.

## *Tweak Menu*

This page displays the information of clock speeds and enables you to set the memory voltage for your system. The clock speeds are determined by the kind of processor installed in your system.




**CPU Frequency (83.3 MHz)**

This item shows the frequency of CPU reference clock.

**CPU Ratio (29)**

This item shows the max CPU ratio supported.

**Intel(R) Pentium(R) CPU J2850 @ 2.41 GHZ**

This is display-only field and displays the information of the CPU installed in your computer.

**CPU Speed (2.41 GHz)**

This item shows the CPU speed.

**Memory Frequency (1333 MHz)**

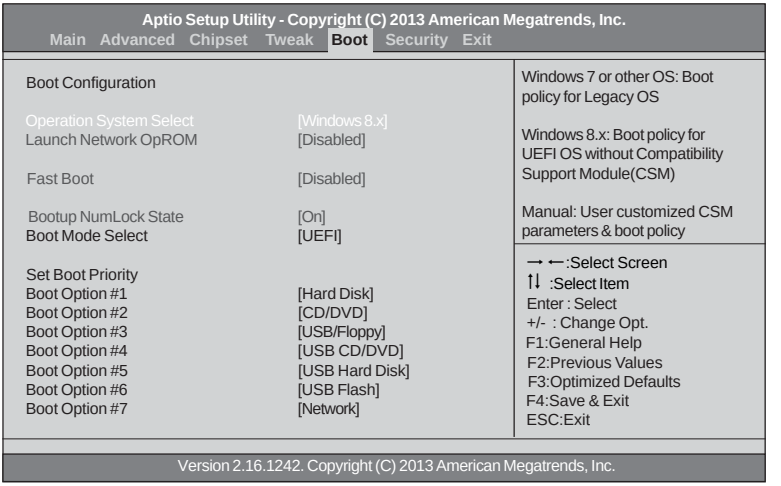
This item shows the memory frequency.

**Total Memory (4096 MB (LPDDR3))**

This item shows the total memory.

## *Boot Menu*

This page enables you to set the keyboard NumLock state.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
Boot Configuration
Operation System Select [Windows 8.x]
Launch Network OpROM [Disabled]
Fast Boot [Disabled]
Bootup NumLock State [On]
Boot Mode Select [UEFI]
Set Boot Priority
Boot Option #1 [Hard Disk]
Boot Option #2 [CD/DVD]
Boot Option #3 [USB/Floppy]
Boot Option #4 [USB CD/DVD]
Boot Option #5 [USB Hard Disk]
Boot Option #6 [USB Flash]
Boot Option #7 [Network]
Windows 7 or other OS: Boot policy for Legacy OS
Windows 8.x: Boot policy for UEFI OS without Compatibility Support Module(CSM)
Manual: User customized CSM parameters & boot policy
→←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

**Operation System Select (Windows 8.x)**

This item is used to select the operation system.

**Launch Network OpROM (Disabled)**

This item enables or disables Launch Network OpROM.

**Fast Boot (Disabled)**

Use this item to enable or disable the fast boot.

**Bootup NumLock State (On)**

This item enables you to select NumLock state.

**Set Boot Priority**

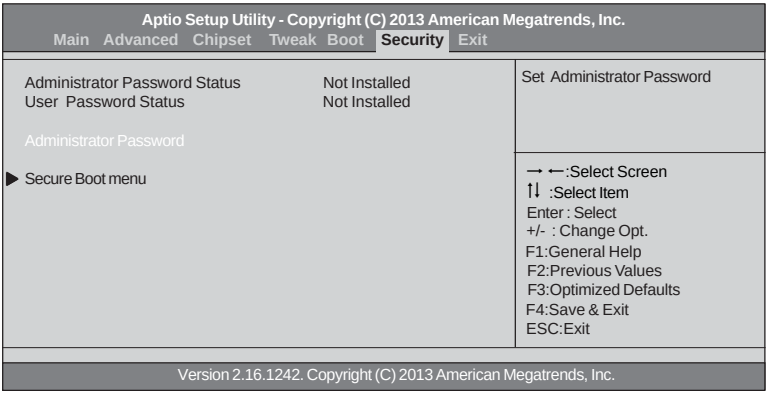
This item enables you to set boot priority for all boot devices.

**Boot Option #1/ 2/ 3/ 4/ 5/ 6/ 7**

These items show the boot priorities and can be used to set the boot priorities of various device categories.

## *Security Menu*

This page enables you to set setup administrator and password.




**Administrator Password Status (Not Installed)**

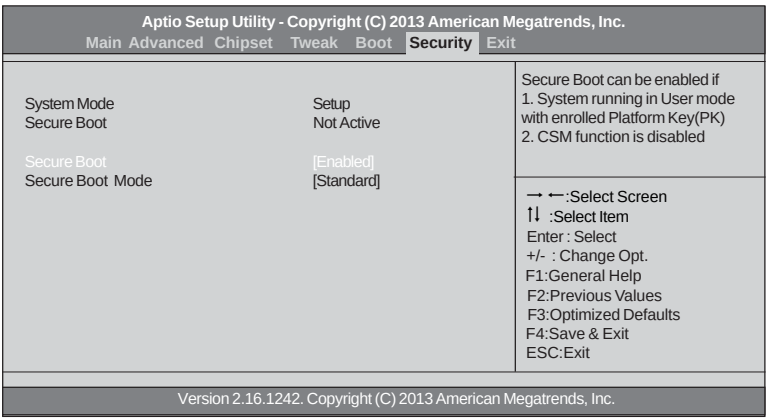
This item shows administrator password installed or not.

**User Password Status (Not Installed)**

This item shows user password installed or not.

**▶ Secure Boot menu**

Scroll to this item and press <Enter> to view the following screen.


Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Exit
System Mode Setup
Secure Boot Not Active
Secure Boot [Enabled]
Secure Boot Mode [Standard]
Secure Boot can be enabled if
1. System running in User mode with enrolled Platform Key(PK)
2. CSM function is disabled
→ ←:Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

**System Mode (Setup)**

This item shows system of secure boot (can be setup or user).

**Secure Boot (Not Active)**

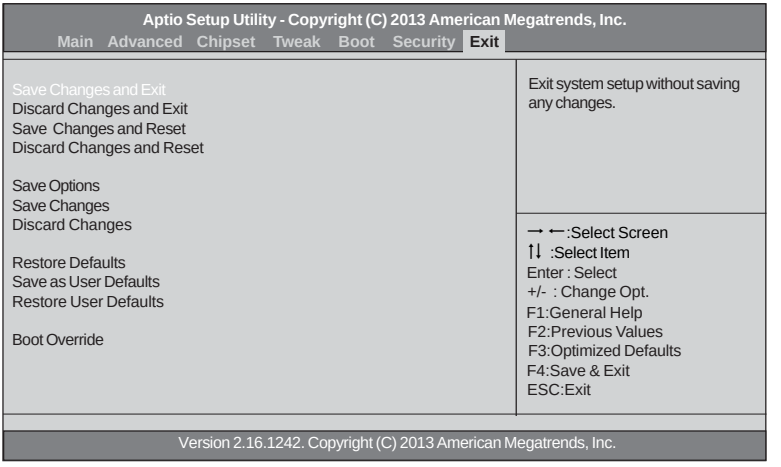
This item shows the active state of secure boot.

**Secure Boot Mode (Standard)**

This item is used to select secure boot mode, when you select standard mode, secure boot policy is fixed; when you select custom mode, the image execution policy and secure boot key databases are changeable.

## *Exit Menu*

This page enables you to exit system setup after saving or without saving the changes.




**Save Changes and Exit**
Use this item enables you to exit system setup after saving the changes.

**Discard Changes and Exit**
Use this item enables you to exit system setup without saving any changes.

**Save Changes and Reset**
Use this item enables you to reset the system setup after saving the changes.

**Discard Changes and Reset**
Use this item enables you to reset system setup without saving any changes.

**Save Options**
Use this item enables you to save the options that you have made.

**Save Changes**
Use this item enables you to save the changes that you have made.

**Discard Changes**
Use this item enables you to discard any changes that you have made.

**Restore Defaults**
Use this item enables you to restore the system defaults.

**Save as User Defaults**
Use this item enables you to save the changes that you have made as user defaults.

**Restore User Defaults**
Use this item enables you to restore user defaults to all the setup options.

**Boot Override**
Use this item enables you to set the device order.

### *Updating the BIOS*

You can download and install updated BIOS for this motherboard from the manufacturer's Web site. New BIOS provides support for new peripherals, improvements in performance, or fixes for known bugs. Install new BIOS as follows:

1. If your motherboard has a BIOS protection jumper, change the setting to allow BIOS flashing.
2. If your motherboard has an item called Firmware Write Protect in Advanced BIOS features, disable it. (Firmware Write Protect prevents BIOS from being overwritten.)
3. Prepare a bootable device or create a bootable system disk. (Refer to Windows online help for information on creating a bootable system disk.)
4. Download the Flash Utility and new BIOS file from the manufacturer's Web site. Copy these files to the bootable device.
5. Turn off your computer and insert the bootable device in your computer. (You might need to run the Setup Utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the bootable device first.)
6. At the C:\ or A:\ prompt, type the Flash Utility program name and the file name of the new BIOS and then press <Enter>. Example: AFUDOS.EXE 040706.ROM
7. When the installation is complete, remove the bootable device from the computer and restart your computer. If your motherboard has a Flash BIOS jumper, reset the jumper to protect the newly installed BIOS from being overwritten. The computer will restart automatically.

This concludes Chapter 3. Refer to the next chapter for information on the software supplied with the motherboard.

***Memo***

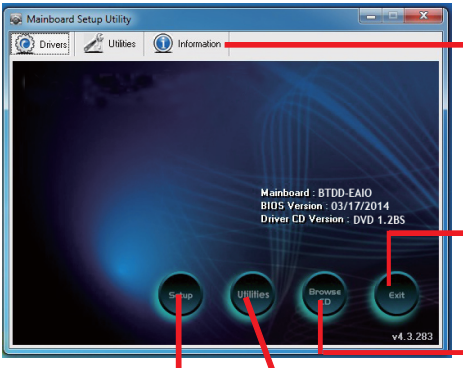
# Chapter 4
## *Using the Motherboard Software*

## Auto-installing under Windows 8

*Suggestion: Microsoft has released the updated (*.msu). to provide a cllection of performance and reliability improvements that are designed to improve the Windows 8 experience. Before you install the Motherboard driver, please download Windows 8 (KB2811660) and Windows 8 (KB2822241) from Microsoft website, link as below:*
*Windows 8 (KB2811660): http://www.microsoft.com/en-us/download/details.aspx?id=36901*
*Windows 8 (KB2822241): http://www.microsoft.com/en-us/download/details.aspx?id=38201*

*Note: It's only for Windows 8, if you use Windows 8.1 as your operation system, no need to install these updated program.*

The auto-install DVD-ROM makes it easy for you to install the drivers and software. The support software DVD-ROM disc loads automatically under Windows 8. When you insert the DVD-ROM disc in the DVD-ROM drive, the auto-run feature will automatically bring up the installation screen. The screen has four buttons on it: **Setup**, **Utilities**, **Browse CD** and **Exit**.




**Information:**
Displays the path for all software and drivers available on the disk.

Click "**Exit**" button to close the Auto-Setup window.

**Browse CD:**
Open Windows Explorer and show the contents of the support disk.

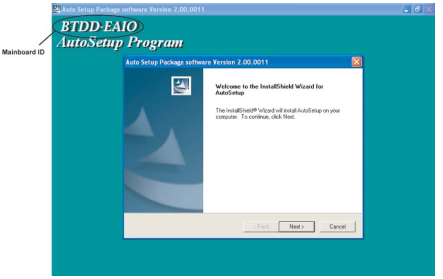
Click the "**Setup**" button to select and run the software installation program.

Click the " **Utilities"** button to select and install ECS Intelligent Utility.

## Running Setup

Follow these instructions to install device drivers and software for the motherboard:

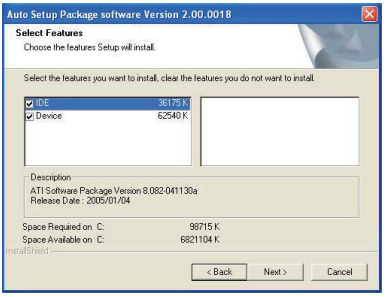
1. Click **Setup**. The installation program begins:


Mainboard ID
BTDD-EAIO
AutoSetup Program
Auto Setup Package software Version 2.00.0011
Welcome to the InstallShield Wizard for AutoSetup
The InstallShield® Wizard will install AutoSetup on your computer. To continue, click Next.
< Back
Next >
Cancel

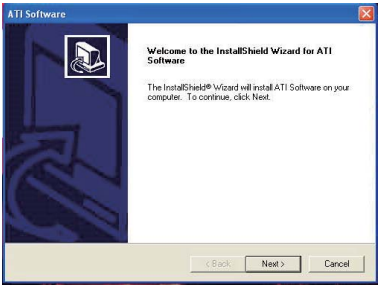
*The following screens are examples only. The screens and driver lists will be different according to the motherboard you are installing.*

The motherboard identification is located in the upper left-hand corner.

2. Click **Next.** The following screen appears:


Auto Setup Package software Version 2.00.0018
Select Features
Choose the features Setup will install.
Select the features you want to install, clear the features you do not want to install.
IDE 36175 K
Device 62540 K
Description
ATI Software Package Version 8.082-041130a
Release Date : 2005/01/04
Space Required on C: 98715 K
Space Available on C: 6821104 K
InstallShield
< Back
Next >
Cancel

3. Check the box next to the items you want to install. The default options are recommended.
4. Click **Next** to run the Installation Wizard. An item installation screen appears:

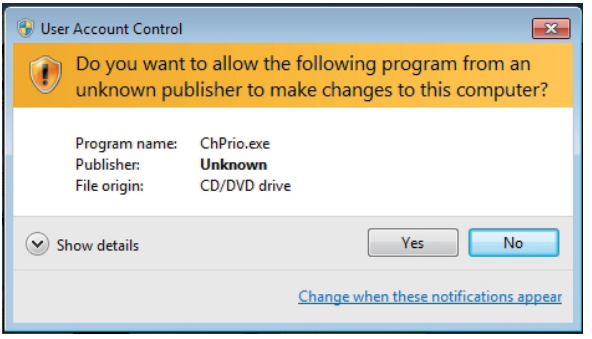

ATI Software
Welcome to the InstallShield Wizard for ATI Software
The InstallShield® Wizard will install ATI Software on your computer. To continue, click Next.
< Back
Next >
Cancel

5. Follow the instructions on the screen to install the items.

*Drivers and software are automatically installed in sequence. Follow the onscreen instructions, confirm commands and allow the computer to restart a few times to complete the installation.*

*Windows 8 will show the following screen after system restart, you must select "Desktop" in the bottom left to install the next driver.*

*Windows 8 will appear below UAC (User Account Control) message after the system restart. You must select "Yes" to install the next driver. Continue this process to complete the drivers installation.*


User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: ChPrio.exe
Publisher: Unknown
File origin: CD/DVD drive
Show details
Yes
No
Change when these notifications appear

## Manual Installation

If the auto-install DVD-ROM does not work on your system, you can still install drivers through the file manager for your OS (for example, Windows Explorer). Look for the chipset and motherboard model, and then browse to the directory and path to begin installing the drivers. Most drivers have a setup program (SETUP.EXE) that automatically detects your operating system before installation. Other drivers have the setup program located in the operating system subfolder.

If the driver you want to install does not have a setup program, browse to the operating system subfolder and locate the readme text file (README.TXT or README.DOC) for information on installing the driver or software for your operating system.

# Using the Motherboard Software

***Memo***

# Chapter 5
## *Trouble Shooting*

## Start up problems during assembly

After assembling the PC for the first time you may experience some start up problems. Before calling for technical support or returning for warranty, this chapter may help to address some of the common questions using some basic troubleshooting tips.

## Solving Problems

Follow these tips when you troubleshoot your computer:

• If you added or removed a part before the problem started, review the installation procedures and ensure that the part is correctly installed.

• If a peripheral device does not work, ensure that the device is properly connected.

• If an error message appears on the screen, write down the exact message. This message may help support personnel diagnose and fix the problem(s).

• If an error message occurs in a program, see the program's documentation.

*Note: The procedures in this document were written for the Windows default view, so they may not apply if you set your computer to the Windows Classic view.*

## Display Problems

***Problem: Blank screen or no image is displayed on the monitor.***

Troubleshooting and problem resolution:

Check that the LCD/LED screen has been turned on; If not, press the LCD/LED On/Off button to turn on the LCD/LED.

If still cannot solve the problem, contact to our Customer Service.

***Problem: You need to change display property settings.***

Setting display background and icon properties:

1. Right-click the desktop anywhere except over an icon, then select Personalize from the pop-up menu.

2. From here, select the appropriate options to:

• Change the desktop background

• Select a screen saver

• Select colors and appearance options for icons and characters

• Set resolution and colors by using Display Settings options.

***Problem: Ripple on screen***

Troubleshooting and problem resolution:

1. Check for devices located less than one meter from the computer such as refrigerators, electric fans, electric dryers, UPSs, regulators, fluorescent lamps

or other computers that may be generating magnetic interference.

2. Move any interfering devices away from the computer.

3. If the problem persists, consult with our Service.

## Troubleshooting Audio Problems

***Problem: No sound from integrated speakers.***

Troubleshooting and problem resolution:

• Adjust the windows volume control — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume, bass, or treble controls to eliminate distortion.

• Reinstall the audio driver.

• Disconnect headphones from the headphone connector — Sound from the speakers is automatically disabled when headphones are connected to the computer's side-panel headphone connector.

***Problem: No sound from headphones.***

Troubleshooting and problem resolution:

• Check the headphone cable connection — Ensure that the headphone cable is securely inserted into the headphone connector.

• Adjust the windows volume control — Click or double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted.

## Maintenance and care tips

Your computer, like any electrical appliance, requires proper care and maintenance. Here are some basic PC care tips to help prolong the life of the motherboard and keep it running as best as it can.

1. Keep your computer in a well ventilated area. Leave some space between the PC and the wall for sufficient airflow.

2. Keep your computer in a cool dry place. Avoid dusty areas, direct sunlight and areas of high moisture content.

3. In places of hot and humid weather you should turn on your computer once every other week to circulate the air and prevent damage from humidity.

4. If possible, ensure the power cord has an earth ground pin directly from the wall outlet. This will reduce voltage fluctuation that may damage sensitive devices.

## Panel clean tips

The following steps explains how to clean the panel:

1. When cleaning the computer, please make sure that the computer is switched off.

2. Put on gloves to prevent stains on the touch panel and prevent injured by the sharp edge of the touch panel.

3. Do not hold FPC/Copper tail while handing the touch panel.

4. Do not pile up touch panel and put heavy matter on touch panel.

5. Do not add any stress on touch film.

6. Use dry cloth or soft cloth with alcohol, neutral detergent or ethanol for clearing the touch panel in case of dirt on it.

7. Do not use any organic solvents except alcohol.

***Memo***